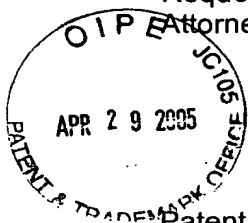


Patent No. 6,839,664  
Request for Cert. of Correction dated April 25, 2005  
Attorney Docket No. 4293-032556



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No. : 6,839,664 Confirmation No. 1650  
Inventor : Robert C. KULL  
Issued : January 4, 2005  
Title : Electrically Controlled Pneumatic End of Train  
Pneumatic Emulation System  
Examiner : Russell Warren Frejd  
Customer No. : 28289

REQUEST FOR CERTIFICATE OF CORRECTION OF PATENT  
FOR PTO MISTAKE (37 C.F.R. 1.322(a))

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

ATTENTION: Decision and Certificate of Correction Branch  
Patent Issue Division

Sir:

In accordance with 35 U.S.C. §254, we attach hereto Form PTO/SB/44 and a copy of proof of PTO errors and request that a Certificate of Correction be issued in the above-identified patent. The following errors appear in the patent as printed:

Face of Patent, See Item (\*) Notice:

"Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 814 days.

This patent is subject to a terminal disclaimer."

should read:

-- (\*) Notice: The term of this patent shall not extend beyond the expiration date of Patent No. 6,217,126. --  
(See Terminal Disclaimer filed May 4, 2004.)

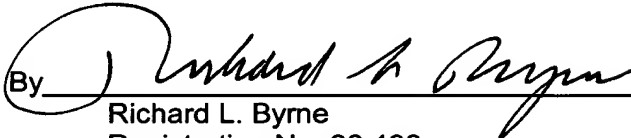
**NOTE: We assume that this "Notice" will void the existing "Notice" granting a Patent Term Extension of 814 days.**

Face of Patent, See Item (57) ABSTRACT, Lines 2-3, "fill train operation"  
should read -- full train operation --  
(See application as filed June 9, 2000, page 23, line 2.)

Column 11, Line 20, Claim 15, "approximately 5 PSI" should read  
-- approximately 15 PSI --  
(See Amendment of 05/04/2004, page 5, Claim 15, line 3.)

Respectfully submitted,

THE WEBB LAW FIRM

By 

Richard L. Byrne  
Registration No. 28,498  
Attorney for Registrant  
700 Koppers Building  
436 Seventh Avenue  
Pittsburgh, PA 15219-1845  
Telephone: (412) 471-8815  
Facsimile: (412) 471-4094

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO. : 6,839,664  
DATED : January 4, 2005  
INVENTOR(S) : Kull

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Face of Patent, See Item (\*) Notice:

Delete

"Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 814 days.

This patent is subject to a terminal disclaimer."

and insert in its place:

-- (\*) Notice: The term of this patent shall not extend beyond the expiration date of Patent No. 6,217,126. --

{W0183230.1}

MAILING ADDRESS OF SENDER:

The Webb Law Firm  
700 Koppers Building  
436 Seventh Avenue  
Pittsburgh, PA 15219-1845

PATENT NO. 6,839,664

No. of additional copies



This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO. : 6,839,664  
DATED : January 4, 2005  
INVENTOR(S) : Kull

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Face of Patent, See Item (57) ABSTRACT, Lines 2-3, "fill train operation"  
should read -- full train operation --

Column 11, Line 20, Claim 15, "approximately 5 PSI" should read  
-- approximately 15 PSI --

{W0183230.1}

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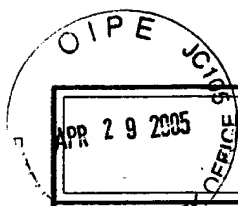
PATENT NO. 6,839,664

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This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



**Terminal Disclaimer To Obviate A Double  
Patenting Rejection Over A Prior Patent**

Docket No.  
00420157aa

In RE Application Of: **Robert C. Kull**

Serial No.  
09/590,696

Filing Date  
06/09/2000

Examiner  
Frejd, Russell Warren

Group Art Unit  
2128

Invention: **ELECTRONICALLY CONTROLLED PNEUMATIC END OF TRAIN PNEUMATIC EMULATION  
SYSTEM**

Owner of Record:  
**WABTEC Corporation**

**TO THE COMMISSIONER FOR PATENTS:**

The above-identified owner of record of a **100** percent interest in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application, which would extend beyond the expiration date of the full statutory term defined in 35 U.S.C. 154 to 156 and 173, as presently shortened by any terminal disclaimer, of prior Patent No. **6,217,126**. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the prior patent are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors and/or assigns.

In making the above disclaimer, the owner does not disclaim the terminal part of any patent granted on the instant application that would extend to the expiration date of the full statutory term as defined in 35 U.S.C. 154 to 156 and 173 of the prior patent, as presently shortened by any terminal disclaimer, in the event that it later expires for failure to pay a maintenance fee, is held unenforceable, is found invalid by a court of competent jurisdiction, is statutorily disclaimed in whole or terminally disclaimed under 37 C.F.R. 1.321, has all claims cancelled by a reexamination certificate, is reissued, or is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer.

Check either box 1 or 2 below, if appropriate.

1. ☐ For submissions on behalf of an organization (e.g., corporation, partnership, university, government agency, etc.), the undersigned is empowered to act on behalf of the organization.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

2. ☒ The undersigned is an attorney of record.

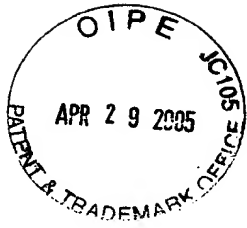
*Signature*

Dated: **May 4, 2004**

**Michael E. Whitham, Reg. No. 32,635**

*Typed or Printed Name*

- ☒ Terminal disclaimer fee under 37 C.F.R. 1.20(d) included.  
☐ PTO suggested wording for terminal disclaimer was unchanged.  
☐ Certification under 37 C.F.R. 3.73(b) is required if terminal disclaimer is signed by the assignee.



# **ELECTRICALLY CONTROLLED PNEUMATIC END OF TRAIN PNEUMATIC EMULATION SYSTEM**

## **DESCRIPTION**

5

## **BACKGROUND OF THE INVENTION**

### *Field of the Invention*

The present invention generally relates to an electronically controlled pneumatic (ECP) end of train (EOT) pneumatic emulation system and, more particularly, to a pneumatic emulation system which allows full train speed operation of standalone ECP train units with non-ECP equipped locomotives.

### *Background Description*

Air brakes are the most commonly used brakes for freight trains. These brakes use changes compressed air pressure to control the operation of the brakes at each car along the train. A "brake pipe" connects all of the cars in the train and the locomotives, with the locomotives supplying the pressurized air to the brake pipe. The brake pipe may extend upwards of one mile or longer and provide the necessary air pressure to the brakes of each car of the train for braking operations.

In the most typical brake application systems, the brake control is actuated from a "driver's brake valve". The driver's brake valve allows air to be fed into the brake pipe or released from the brake pipe during the braking operations. A distributor or "triple valve" located on each car also monitors the pressure in the brake pipe such that when brake pipe pressure

**ELECTRICALLY CONTROLLED  
PNEUMATIC END OF TRAIN  
PNEUMATIC EMULATION SYSTEM**

**ABSTRACT OF THE DISCLOSURE**

An electronically controlled pneumatic (ECP) end of train (EOT) pneumatic emulation system allows full train operation of standalone ECP unit trains, even with non-ECP equipped locomotives. The emulation system is based on close integration with the EOT system and allows operation of unit trains equipped with "all electric" ECP without pneumatic overlay or emulation capability, using standard, non-ECP equipped locomotives.

**AMENDMENT TRANSMITTAL LETTER (Large Entity)**

Applicant(s): R. C. Kull,

Docket No.

00420157AA

Serial No.

09/590,696

Filing Date

June 9, 2000

Examiner

R. W. Frejd

Group Art Unit

2128

Invention: **ELECTRICALLY CONTROLLED PNEUMATIC END OF TRAIN PNEUMATIC EMULATION SYSTEM**

APR 29 2005

TO THE COMMISSIONER FOR PATENTS:

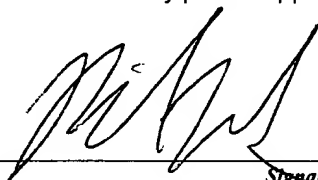
Transmitted herewith is an amendment in the above-identified application.

The fee has been calculated and is transmitted as shown below.

**CLAIMS AS AMENDED**

	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST # PREV. PAID FOR	NUMBER EXTRA CLAIMS PRESENT	RATE	ADDITIONAL FEE
TOTAL CLAIMS	20 -	20 =	0 x	\$18.00	\$0.00
INDEP. CLAIMS	3 -	3 =	0 x	\$86.00	\$0.00
Multiple Dependent Claims (check if applicable) <input type="checkbox"/>					\$0.00
TOTAL ADDITIONAL FEE FOR THIS AMENDMENT					\$0.00

- ☒ No additional fee is required for amendment.
- ☐ Please charge Deposit Account No. \_\_\_\_\_ in the amount of \_\_\_\_\_
- ☐ A check in the amount of \_\_\_\_\_ to cover the filing fee is enclosed.
- ☒ The Director is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. **50-2041**
- ☒ Any additional filing fees required under 37 C.F.R. 1.16.
- ☒ Any patent application processing fees under 37 CFR 1.17.



Signature

Dated: May 4, 2004

Michael E. Whitham  
Reg no. 32,635  
Whitham, Curtis & Christofferson, P.C.  
11491 Sunset Hills Road, Suite 340  
Reston, Virginia 20190  
703-787-9400  
Customer number: 30743

I certify that this document and fee is being deposited on \_\_\_\_\_ with the U.S. Postal Service as first class mail under 37C.F.R. 1.8 and is addressed to the \_\_\_\_\_ for Patents, P.O. Box 1450, ALEXANDRIA, VA 22313-1450.

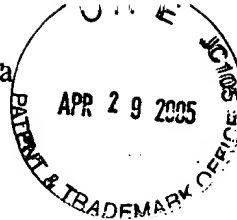
Signature of Person Mailing Correspondence

**HAND DELIVERED**

Typed or Printed Name of Person Mailing Correspondence

cc:





## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of

Robert C. Kull

Confirmation No. 1650

Serial No. 09/590,696

Group Art Unit 2128

Filed June 9, 2000

Examiner Frejd, Russell Warren

For ELECTRICALLY CONTROLLED PNEUMATIC END OF TRAIN  
PNEUMATIC EMULATION SYSTEM

Box Non-Fee Amendment  
Commissioner for Patents  
PO Box 1450  
Alexandria, Virginia 22313-1450

## AMENDMENT UNDER 37 C.F.R. §1.111

Sir:

In response to the Office Action mailed February 6, 2004, please amend the above-identified patent application as follows to place the application in *prima facie* condition for allowance:

**Amendments to the Specification:** There are no amendments to the specification.

**Amendments to the Claims:** Amendments to the claims are indicated by the notation "currently amended" in the listing of claims beginning on page 2 of this paper.

**Amendments to the Drawings:** There are no amendments to the drawings.

**Remarks:** The "REMARKS" section begins on page 6 of this paper.

1 15. (Original) The method of claim 14, wherein the first predetermined  
2 limit is approximately 70 PSI and the second predetermined limit is  
3 approximately 15 PSI plus the first predetermined limit.

1 16. (Original) The method of claim 14, further comprising increasing the  
2 brake pipe pressure to the start brake pipe pressure when the EOT  
3 determining step and the HOT determining step exceed the predetermined  
4 limit and the second predetermined limit, respectively.

1 17. (Original) The method of claim 11, further comprising providing an  
2 ECP message to the EOT and individual train cars to make an emergency  
3 brake pressure application when the service brake application exceeds a  
4 predetermined reduction in brake pipe pressure.

1 18. (Original) The method of claim 17, wherein the predetermined  
2 reduction in brake pipe pressure is approximately 120% of a full service  
3 brake application.

1 19. (Original) The method of claim 11, further comprising determining  
2 whether there is a change in the start brake pipe pressure prior to the  
3 determining whether a rate of change of the start brake pipe pressure is  
4 within the predetermined threshold limit, wherein a second ECP message  
5 is provided to the EOT and the individual train cars when there is no  
6 change to the start brake pipe pressure.

1 20. (Original) The method of claim 19, wherein the second message  
2 instructs the EOT and individual train cars to remain at the start brake pipe  
3 pressure.